

3.0 ENVIRONMENTAL SETTING

3.1 Water Supply

The study area is served by public water supply companies and private water supply wells. The public supplies utilize surface water and groundwater as their sources.¹

The Perkasio Borough Water Authority (PBWA) is supplied with groundwater from five wells (well nos. 2, 4, 5, 6, and 9). The well field is located at the intersection of Three Mile Run Road and Rockhill Road. The closest well is located 1.7 miles northeast of the site, and the other wells are located from 1.9 to 2.3 miles northeast of the site. The wells are completed in the Brunswick Formation. The well depths, water levels, and yields are as follows:^{1,15,16}

Well Number	Depth (feet)	Water Level (feet)	Yield (gpm *)
2	141	100	90
4	331	27	35
5	303	100	115
6	300	60	320
9	370	100	90

* gallons per minute

PBWA serves a population of about 7,020 people (2,600 connections times 2.7 persons per connection) in Perkasio Borough and East Rockhill Township.^{1,15,16}

The Sellersville Borough Municipal Water Works (SBMWW) serves a population of about 5,000 people in Sellersville Township and a portion of West Rockhill Township with surface water and groundwater. The surface intake is located on the Smoketown Creek catch basin, about 1.8 miles northwest and upstream of the site. The SBMWW utilizes two wells located on Maple Avenue (well no. 4) and Ninth Street (well no. 5). Well no. 4 is utilized by SBMWW because well no. 5 was shut down approximately two years ago due to a TCE contamination problem. Well no. 4 is located approximately 0.5 mile south of the site, and well no. 5 is located approximately 0.1 mile southeast of the site. The average yield of the wells ranges from 350 to 400 gpm. SBMWW withdraws surface water at the rate of 300 gpm for 5 days per week and 12 hours per day. The average well depths and the static water levels are as follows:^{1,17}

Well Number	Depth (feet)	Water Level (feet)
4	500	55
5	500	92

The wells are completed in the Brunswick Formation. The SBMWW water supply system is integrated.^{1,17}

The Hilltown Water and Sewer Authority (HWSA) is supplied with groundwater from three wells (wells no. 1, 2, and 5). The well depths, water levels, and yields are shown below:^{1,18}

Well Number	Depth (feet)	Water Level (feet)	Yield (gpm)
1	390	3	100
2	420	17	290
5	360	65	40

Well nos. 1, 2, and 3 are located 1.3, 1.9, and 3.3 miles southeast of the site, respectively. Based on the geologic map, the wells are probably completed in the Brunswick Formation. HWSA serves a population of 14,000 people in Silverdale Borough and Hilltown Township and has an emergency interconnection with the Telford Borough Water Authority (TBWA).^{1,18,19}

TBWA is supplied with groundwater from five wells located within the southwestern portion of the study area. The closest well is located about 2.5 miles south of the site. The wells are completed in the Brunswick and Lockatong Formations, and their depths range from 240 to 500 feet. TBWA utilizes 451,800 gallons per day and serves a population of 4,225 people in Telford Borough. The company has interconnections with HWSA and the North Penn Water Authority.^{18,20,21,22}

The remainder of the population within the study area uses groundwater from private wells for potable supply. The wells are drilled in the Brunswick and Lockatong Formations and the diabase. The majority of residents of West Rockhill Township (a population of 3,575), located west of the site, rely on domestic wells for their water supply. This population figure is based on a count of homes outside the public water service areas, multiplied by 3.8 persons per home.¹